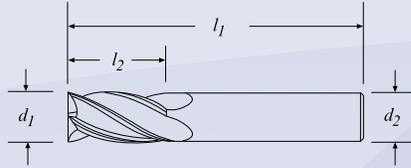


4 Flute – Single End – Square End



TOLERANCES

$d_1 = +.000 - .002$
 $d_2 = -.0001 - .0004$

Series 1



4-Flute End Mills – Square End –
Micrograin Solid Carbide – 30° Right
Hand Spiral – Right Hand Cutting –
Center Cutting
** 6 flutes
† AD = Amorphous Diamond
CVD = Dia-Carb CVD Diamond
Coatings

Serie 1



Fresas de 4 filos – Punta plana
– Carburo sólido con micrograno
– Hélice a derecha 30° – Corte a
derecha – Corte al Centro
** 6 filos
† AD = Diamante amorfo
CVD = Recubrimientos de
diamante CVD Dia-Carb

Série 1



Fraises 4 dents – Bout plat –
Carbure monobloc, micrograin –
Hélice à droite, 30° – Coupe à droite
– Coupe au centre
** 6 dents
† AD = Diamant amorphe
CVD = Revêtements de diamant
Dia-Carb CVD

Cutting Diameter d_1	Length of Cut l_2	Overall Length l_1	Shank Diameter d_2	Uncoated	Uncoated	Ti-NAMITE	Ti-NAMITE-C	Ti-NAMITE-A	Ti-NAMITE-A	AD [†]	CVD [†]	Series Number
				EDP No.	EDP No. w/Flat	(TiN) EDP No.	(TiCN) EDP No.	(AlTiN) EDP No.	(AlTiN) EDP No. w/Flat	EDP No.	EDP No.	
1/64	1/32	1-1/2	1/8	30101	–	39101	39001	30191	–	93300	–	1
1/32	5/64	1-1/2	1/8	30103	–	39103	39003	30192	–	93301	–	1
3/64	7/64	1-1/2	1/8	30105	–	39105	39005	30193	–	93302	–	1
1/16	1/8	1-1/2	1/8	31601	–	31650	31238	31251	–	–	–	16
1/16	3/16	1-1/2	1/8	30107	–	39107	39007	30194	–	93303	91268	1
5/64	3/16	1-1/2	1/8	30109	–	39109	39009	30195	–	93304	–	1
3/32	3/16	1-1/2	1/8	31603	–	31651	31239	31252	–	–	–	16
3/32	9/32	1-1/2	1/8	30111	–	39111	39011	30196	–	93305	–	1
7/64	3/8	1-1/2	1/8	30113	–	39113	39013	30197	–	93306	–	1
1/8	1/4	1-1/2	1/8	31605	–	31652	31240	31253	–	–	–	16
1/8	3/8	1-1/2	1/8	30177	–	39177	39077	30029	–	–	–	1
*1/8	1/2	1-1/2	1/8	30115	–	39115	39015	30198	–	93307	91272	1
1/8	3/4	2-1/4	1/8	33141	–	31727	31737	31747	–	93324	–	1L
1/8	1	3	1/8	33143	–	31860	31870	31880	–	93334	–	1EL
9/64	1/2	2	3/16	30117	–	39117	39017	30199	–	–	–	1
5/32	5/16	2	3/16	31607	–	31653	31241	31254	–	–	–	16
5/32	1/2	2	3/16	30119	–	39119	39019	30000	–	–	–	1
11/64	5/8	2	3/16	30121	–	39121	39021	30001	–	–	–	1
3/16	3/8	2	3/16	31609	–	31654	31242	31255	–	–	–	16
*3/16	5/8	2	3/16	30123	–	39123	39023	30002	–	93308	91276	1
3/16	3/4	2-1/2	3/16	33101	–	31728	31738	31748	–	93325	–	1L
3/16	1-1/8	3	3/16	33121	–	31861	31871	31881	–	93335	–	1EL
13/64	5/8	2-1/2	1/4	30125	–	39125	39025	30003	–	–	–	1
7/32	7/16	2	1/4	31611	–	31655	31243	31256	–	–	–	16
7/32	5/8	2-1/2	1/4	30127	–	39127	39027	30004	–	–	–	1
15/64	3/4	2-1/2	1/4	30129	–	39129	39029	30005	–	–	–	1
1/4	1/2	2	1/4	31613	–	31656	31244	31257	–	–	–	16
*1/4	3/4	2-1/2	1/4	30131	–	39131	39031	30006	–	93309	91280	1
1/4	1-1/8	3	1/4	33103	–	31729	31739	31749	–	93326	–	1L
1/4	1-1/2	4	1/4	33123	–	31862	31872	31882	–	93336	–	1EL
17/64	3/4	2-1/2	5/16	30133	–	39133	39033	30007	–	–	–	1
9/32	3/4	2-1/2	5/16	30135	–	39135	39035	30008	–	–	–	1
19/64	13/16	2-1/2	5/16	30137	–	39137	39037	30009	–	–	–	1
5/16	1/2	2	5/16	31615	–	31657	31245	31258	–	–	–	16
*5/16	13/16	2-1/2	5/16	30139	–	39139	39039	30010	–	93310	91284	1
5/16	1-1/8	3	5/16	33105	–	31730	31740	31763	–	93327	–	1L
5/16	1-5/8	4	5/16	33125	–	31863	31873	31883	–	93337	–	1EL
21/64	1	2-1/2	3/8	30141	–	39141	39041	30011	–	–	–	1
11/32	1	2-1/2	3/8	30143	–	39143	39043	30012	–	–	–	1

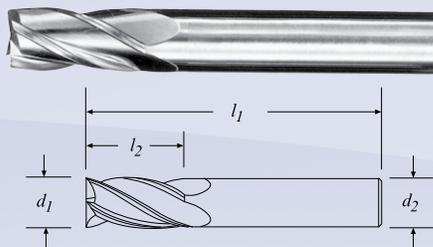
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Long and Extra Long Series 1 highlighted above.

4 Flute – Single End – Square End

TOLERANCES

$d_1 = +.000 - .002$
 $d_2 = -.0001 - .0004$

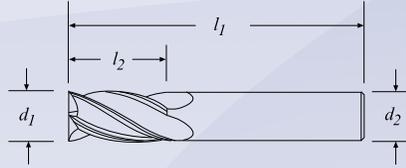


Cutting Diameter d_1	Length of Cut l_2	Overall Length l_1	Shank Diameter d_2	Uncoated	Uncoated	Ti-NAMITE	Ti-NAMITE-C	Ti-NAMITE-A	Ti-NAMITE-A	AD [†]	CVD [†]	Series Number
				EDP No.	EDP No. w/Flat	(TiN) EDP No.	(TiCN) EDP No.	(AlTiN) EDP No.	(AlTiN) EDP No. w/Flat	EDP No.	EDP No.	
23/64	1	2-1/2	3/8	30145	—	39145	39045	30013	—	—	—	1
3/8	5/8	2	3/8	31617	—	31658	31246	31259	—	—	—	16
*3/8	1	2-1/2	3/8	30147	30179	39147	39047	30014	30379	93311	91288	1
3/8	1-1/8	3	3/8	33107	—	31731	31741	31764	—	93328	—	1L
3/8	1-3/4	4	3/8	33127	—	31864	31874	31884	—	93338	—	1EL
25/64	1	2-3/4	7/16	30149	—	39149	39049	30015	—	—	—	1
13/32	1	2-3/4	7/16	30151	—	39151	39051	30016	—	—	—	1
27/64	1	2-3/4	7/16	30153	—	39153	39053	30017	—	—	—	1
7/16	5/8	2-1/2	7/16	31619	—	31659	31247	31260	—	—	—	16
7/16	1	2-3/4	7/16	30155	—	39155	39055	30018	—	93344	—	1
7/16	2	4-1/2	7/16	33109	—	31732	31742	31765	—	—	—	1L
7/16	3	6	7/16	33129	—	31865	31875	31885	—	—	—	1EL
29/64	1	3	1/2	30157	—	39157	39057	30019	—	—	—	1
15/32	1	3	1/2	30159	—	39159	39059	30020	—	—	—	1
31/64	1	3	1/2	30161	—	39161	39061	30021	—	—	—	1
1/2	5/8	2-1/2	1/2	31621	—	31660	31248	31261	—	—	—	16
*1/2	1	3	1/2	30163	30180	39163	39063	30022	30380	93345	91292	1
1/2	2	4-1/2	1/2	33111	—	31733	31743	31766	—	—	—	1L
1/2	3	6	1/2	33131	—	31866	31876	31886	—	—	—	1EL
9/16	1-1/8	3-1/2	9/16	30165	—	39165	39065	30023	—	—	—	1
5/8	3/4	3	5/8	31623	—	31661	31249	31262	—	—	—	16
5/8	1-1/4	3-1/2	5/8	30167	30181	39167	39067	30024	30381	—	—	1
5/8	2-1/4	5	5/8	33113	—	31734	31744	31767	—	—	—	1L
5/8	3	6	5/8	33133	—	31867	31877	31887	—	—	—	1EL
11/16	1-3/8	4	3/4	30169	—	39169	39069	30025	—	—	—	1
3/4	1	3	3/4	31625	—	31662	31250	31263	—	—	—	16
3/4	1-1/2	4	3/4	30171	30182	39171	39071	30026	30382	—	—	1
3/4	2-1/4	5	3/4	33115	—	31735	31745	31768	—	—	—	1L
3/4	3	6	3/4	33135	—	31868	31878	31888	—	—	—	1EL
7/8	1-1/2	4	7/8	30173	—	39173	39073	30027	—	—	—	1
1	1-1/2	4	1	30175	30183	39175	39075	30028	30383	—	—	1
1	2-1/4	5	1	33117	—	31736	31746	31769	—	—	—	1L
1	3	6	1	33137	—	31869	31879	31889	—	—	—	1EL
**1-1/2	2	4-1/2	1-1/4	34611	—	—	—	—	—	—	—	1
*Series 1 Set				30189	—	39189	39089	30030	—	—	—	1

	1L
	1EL
	16



4 Flute – Single End – Square End



TOLERANCES

$d_1 = +0,000 - 0,05$
 $d_2 = +0,000 - 0,01$

Series 1M



4-Flute End Mills – Square End – Micrograin Solid Carbide – 30° Right Hand Spiral – Right Hand Cutting – Center Cutting

Serie 1M



Fresas de 4 filos – Punta plana – Carburo sólido con micrograno – Hélice a derecha 30° – Corte a derecha – Corte al Centro

Série 1M



Fraises 4 dents – Bout plat – Carbure monobloc, micrograin – Hélice à droite, 30° – Coupe à droite – Coupe au centre

Cutting Diameter d_1 mm	Length of Cut l_2 mm	Overall Length l_1 mm	Shank Diameter d_2 mm	Uncoated EDP No.	Ti-NAMITE (TiN) EDP No.	Ti-NAMITE-C (TiCN) EDP No.	Ti-NAMITE-A (AlTiN) EDP No.	Series Number
1	2	38	3	41605	49136	49157	49178	16M
1	4	38	3	40105	48500	48522	48543	1M
1,5	3	38	3	41609	49137	49158	49179	16M
1,5	4,5	38	3	40109	48501	48523	48544	1M
2	4	38	3	41613	49138	49159	49180	16M
2	6,3	38	3	40113	48502	48524	48545	1M
2,5	5	38	3	41617	49139	49160	49181	16M
2,5	9,5	38	3	40117	48503	48525	48546	1M
3	6	38	3	41621	49140	49161	49182	16M
3	12	38	3	40121	48504	48526	48547	1M
3,5	7	50	4	41625	49141	49162	49183	16M
3,5	12	50	4	40125	48505	48527	48548	1M
3	25	75	3	43101	49388	49401	49414	1XLM
4	8	50	4	41629	49142	49163	49184	16M
4	14	50	4	40129	48506	48528	48549	1M
4	25	75	4	43103	49389	49402	49415	1XLM
4,5	9,5	50	4,5	41633	49143	49164	49185	16M
4,5	16	50	6	40133	48507	48529	48550	1M
5	10	50	5	41637	49144	49165	49186	16M
5	16	50	6	40137	48508	48530	48551	1M
5	25	75	5	43107	49391	49404	49417	1XLM
6	12	50	6	41641	49145	49166	49187	16M
6	19	50	6	40141	48509	48531	48552	1M
6	25	75	6	43105	49390	49403	49416	1XLM
7	12	50	8	41645	49146	49167	49188	16M
7	19	63	8	40145	48510	48532	48553	1M
8	12	50	8	41649	49147	49168	49189	16M
8	20	63	8	40149	48511	48533	48554	1M
8	25	75	8	43115	49392	49405	49418	1XLM
9	14	50	9	41653	49148	49169	49190	16M
9	22	75	10	40153	48512	48534	48555	1M
10	16	50	10	41657	49149	49170	49191	16M
10	22	75	10	40157	48513	48535	48556	1M

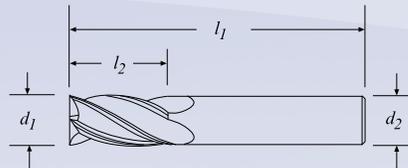
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Long and Extra Long Series 1 highlighted above.

TOLERANCES

$$d_1 = +0,000 - 0,05$$

$$d_2 = +0,000 - 0,01$$



Cutting Diameter d_1 mm	Length of Cut l_2 mm	Overall Length l_1 mm	Shank Diameter d_2 mm	Uncoated	Ti-NAMITE (TiN)	Ti-NAMITE-C (TiCN)	Ti-NAMITE-A (AlTiN)	Series Number
				EDP No.	EDP No.	EDP No.	EDP No.	
10	38	100	10	43125	49393	49406	49419	1XLM
11	19	63	12	41661	49150	49171	49192	16M
11	25	75	12	40161	48514	48536	48557	1M
12	19	63	12	40165	49151	49172	49193	16M
12	25	75	12	41665	48515	48537	48558	1M
12	50	100	12	43135	49394	49407	49420	1XLM
12	75	150	12	43145	49395	49408	49421	1XLM
14	32	89	14	40169	48516	48538	48559	1M
14	75	150	14	43155	49396	49409	49422	1XLM
16	32	89	16	40173	48517	48539	48560	1M
16	75	150	16	43165	49397	49410	49423	1XLM
18	38	100	18	40177	48518	48540	48561	1M
18	75	150	18	43175	49398	49411	49424	1XLM
20	38	100	20	40181	48519	48541	48562	1M
20	75	150	20	43185	49399	49412	49425	1XLM
25	38	100	25	40185	48520	48542	48563	1M
25	75	150	25	43195	49400	49413	49426	1XLM

